

# ● PRINTER RUSH ●

(PTO ASSISTANCE)

Application : <u>10/684,424</u>	Examiner : <u>Huynh</u>	GAU : <u>28/8</u>
From: <u>DP</u>	Location: <u>IDC</u> FMF FDC	Date: <u>12/5/2005</u>

Tracking #: EPM 10/684,424 Week Date: 8/15/2005

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449	_____	<input type="checkbox"/> Continuing Data
<input type="checkbox"/> IDS	_____	<input type="checkbox"/> Foreign Priority
<input type="checkbox"/> CLM	_____	<input type="checkbox"/> Document Legibility
<input type="checkbox"/> IIFW	_____	<input type="checkbox"/> Fees
<input type="checkbox"/> SRFW	_____	<input type="checkbox"/> Other
<input type="checkbox"/> DRW	_____	
<input type="checkbox"/> OATH	_____	
<input type="checkbox"/> 312	_____	
<input checked="" type="checkbox"/> SPEC	<u>7/25/2005</u>	

[RUSH] MESSAGE: Amendment to the Specification: In the Abstracts Replace the original Abstract with the Amended Abstract, but there is no Abstract on the separate sheet to Amend, please provide.

Thanks.

[XRUSH] RESPONSE: \_\_\_\_\_

See misc comm

Done

INITIALS: [Signature]

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.  
REV 10/04

FACSIMILE

MILES &amp; STOCKBRIDGE P.C.

To U.S. Patent and Trademark Office

Fax no. 703-308-6642 Phone no. 703-746-6830

From Mitchell W. Shapiro Phone no. 703.610.8652

Date January 19, 2006 Time

Your Ref.: 10/684,424;  
File no. Our Ref.: XA-9945 Pages including cover 6

Message

Confidentiality Notice • The information in this transmission is intended only for the individual or entity named above. It may be legally privileged and confidential. If you have received this information in error, notify us immediately by calling our operator at the number set forth below. Send the original transmission to us by mail. Return postage is guaranteed. If the reader of this message is not the intended recipient, you are hereby notified that any disclosure, dissemination, distribution or copying of this communication or its contents is strictly prohibited. If you do not receive all pages or have any problems with receiving this transmission, please call Mitchell W. Shapiro at 703.610.8652.

XA-9945

PATENT APPLICATION

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Tomoyuki ISHII et al.

Conf. No.: 3924

Appln. No.: 10/684,424

Group Art Unit: 2818

Filed: October 15, 2003

Examiner: A. Huynh

For: SEMICONDUCTOR MEMORY DEVICE

\* \* \*

RESPONSE TO NOTICE TO FILE CORRECTED APPLICATION PAPERS*Mail Stop Issue Fee*

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

In response to the Notice (copy enclosed) mailed December 20, 2005, the amended abstract is transmitted herewith. Also transmitted herewith, in case is needed, is a marked-up version of the original abstract showing the amendments.

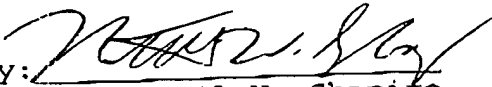
The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the

filing of this paper and has not been requested separately,  
such extension is hereby requested.

Respectfully submitted,

MWS:kss

Miles & Stockbridge P.C.  
1751 Pinnacle Drive  
Suite 500  
McLean, Virginia 22102-3833  
(703) 903-9000

BY:   
Mitchell W. Shapiro  
Reg. No. 31,568

January 19, 2006

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being  
facsimile transmitted to the United States Patent and  
Trademark Office on the date shown below.

January 19, 2006  
Date

  
Signature

**UNITED STATES PATENT AND TRADEMARK OFFICE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Serial Number  
10684424

Date Mailed  
12/20/05

**NOTICE TO FILE CORRECTED APPLICATION PAPERS*****Notice of Allowance Mailed***

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- ♦ Amended abstract is missing from application. Fax missing information to number below.

**APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.**

A copy of this notice MUST be returned with the reply. Please address response to Commissioner for Patents P.O. Box 1450  
Alexandria, VA 22313-1450

A handwritten signature in black ink, appearing to read "Rori Burch", written over a horizontal line.

Rori Burch  
USPTO  
Publishing Division  
Fax (703) 746-6830  
Fax (703) 308-6642  
703-305-0333 exL135 (V)

## ABSTRACT OF THE DISCLOSURE

To realize a semiconductor memory device with reduced cell-to-cell variation in writing characteristics a semiconductor memory has a source region and a drain region, which are formed parallel to each other, and an assist electrode which is between and parallel to the source and drain regions without overlapping, so that at the time of writing, the assist electrode is used as an assist electrode for hot electrons to be injected at the source side and at the time of reading, an inversion layer formed under the assist electrode is used as the source region or the drain region.

BEST AVAILABLE COPY

## ABSTRACT OF THE DISCLOSURE

~~Flash memory is rapidly decreasing in price. There is a demand for a new memory system that permits size reduction and suits multiple value memory. A flash memory of AND type suitable for multiple value memory with multiple level threshold values can be made small in area if the inversion layer is utilized as the wiring, however, it suffers the disadvantage of greatly varying in writing characteristics from cell to cell. Another promising method of realizing multiple value memory is to change the storage locations. This method, however, poses a problem with disturbance at the time of operation. The present invention provides one way to.~~ To realize a semiconductor memory device with reduced cell-to-cell variation in writing characteristics, The a semiconductor memory has a source region and a drain region, which are formed parallel to each other, and an assist electrode which is between and parallel to the source and drain regions without overlapping, so that ~~it uses,~~ at the time of writing, the assist electrode is used as the an assist electrode for hot electrons to be injected at the source side and ~~it uses,~~ at the time of reading, the an inversion layer formed under the assist electrode is used as the source region or the drain region.

BEST AVAILABLE COPY